MS1-1960US

1 of 9 Replacement Sheet

Inventors:

Guo, et al. Title: P2P Mobility System and Method



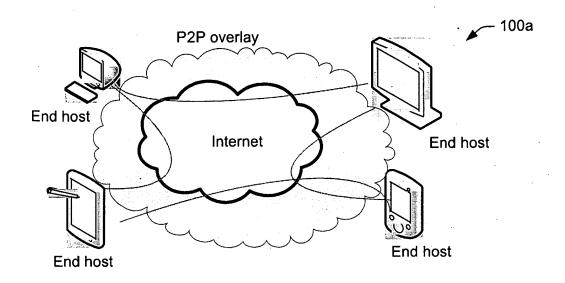


Figure 1a (Related Art)

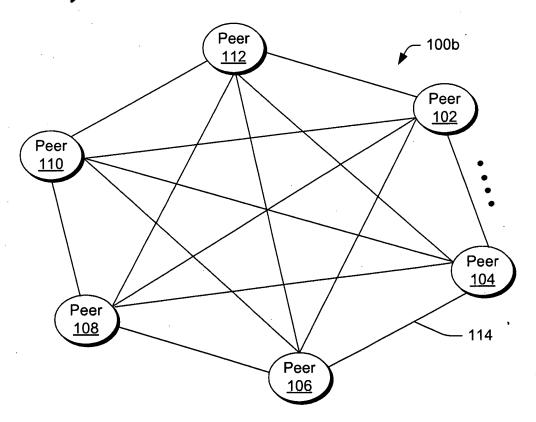


Figure 16 (Related Art)

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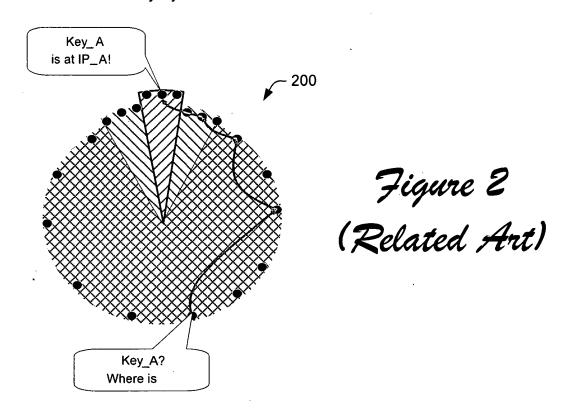
Inventors:

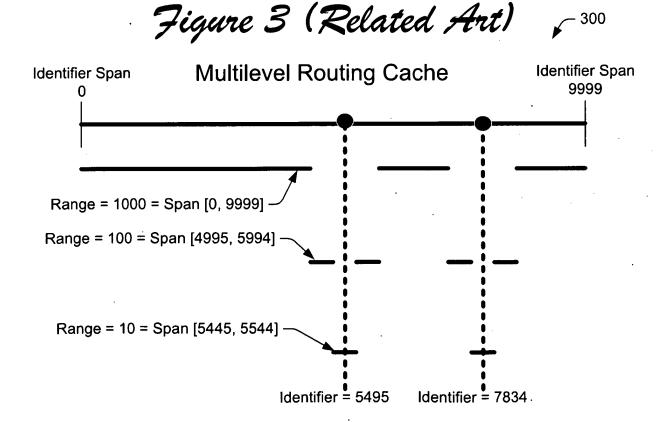
Guo, et al.

Replacement Sheet

Title:

P2P Mobility System and Method





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3 of 9 Replacement Sheet

Inventors: Title: P2

ors: Guo, et al.
P2P Mobility System and Method



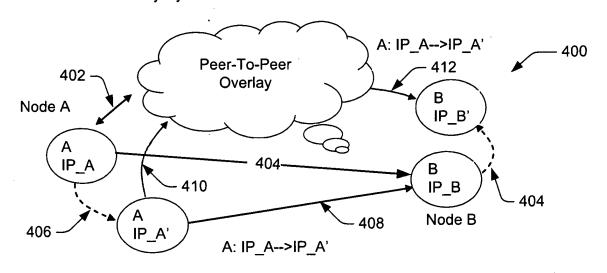
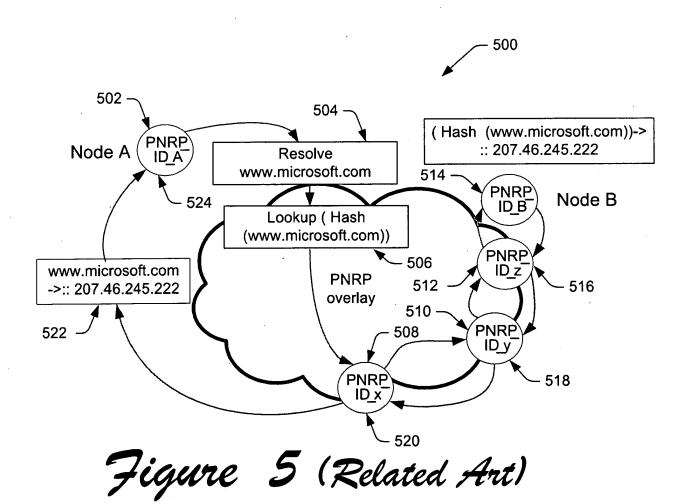


Figure 4 (Related Art)



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4 of 9 Replacement Sheet

Inventors:

Guo, et al. Title: P2P Mobility System and Method



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PNRP Based Address **NHT Maintenance** S/N notification <u>626</u> Service <u>624</u> Application <u>622</u> Layer <u>618</u> **PNRP** <u>620</u> Socket A.P.I. Layer 616 TCP UDP <u>614</u> Kernel Layer <u>606</u> End-To-End IP 610 Mobility Module 612 Device Driver Layer 604 Networking Hardware Layer 602

Figure 6

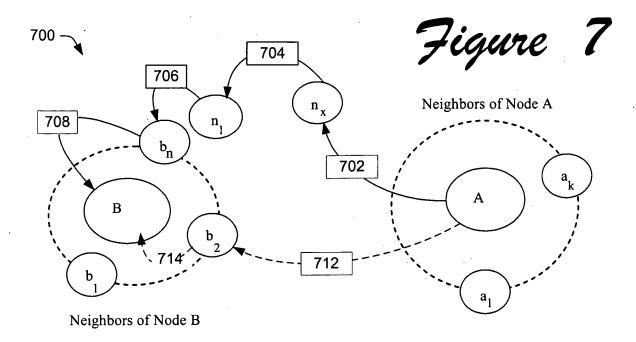
MS1-1960US

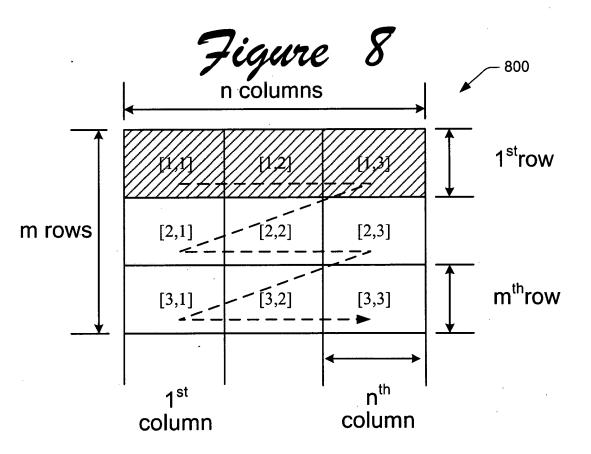
5 of 9 Replacement Sheet

Inventors: Title: P2

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P2P Mobility System and Method







Prioritized Neighbor Hint Table (NHT)

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P2P Mobility System and Method



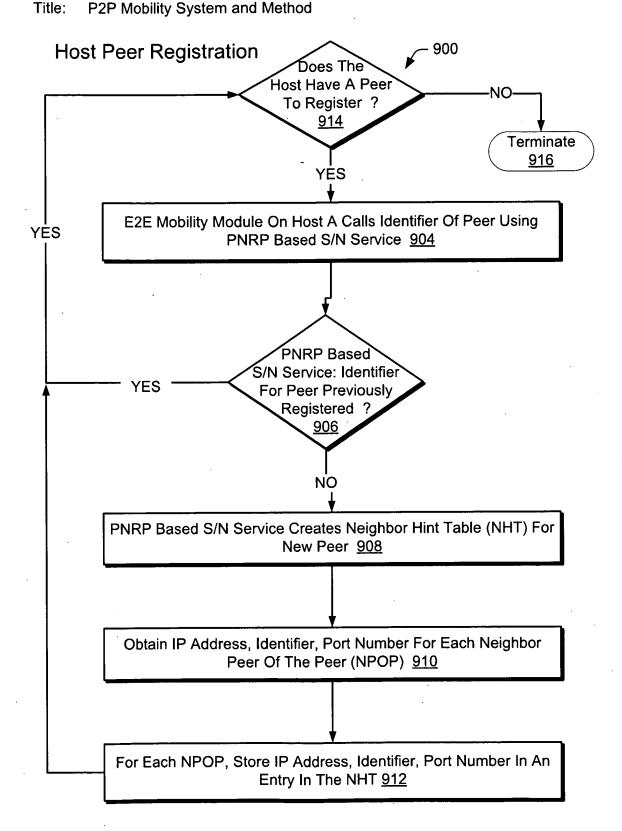


Figure 9

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7 of 9

Inventors:

Guo, et al.

Replacement Sheet

lee@hayes

Title:

P2P Mobility System and Method

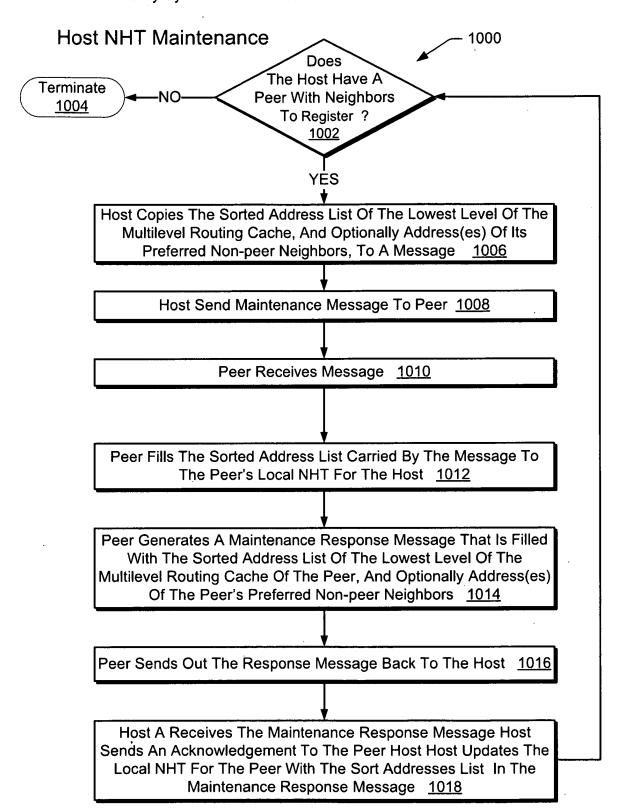


Figure 10

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Inventors:

Guo, et al.

Replacement Sheet

Title:

P2P Mobility System and Method

E2E Mobility Module At Host:

Detects IP Address Change; And

A Connection To The Host's Peer Fails in An Attempt To Deliver An Address Update Message Directly To The Peer

1102

— 1100

lee@hayes

PNRP Based S/N Module At Host:

Receives Notify Request From E2E Mobility Module; And Delays Sending A Notification Message For A Predetermined Threshold During Which The E2E Mobility Module Attempts To Resume The Connection To The Peer 1104

Terminate 1106 Connection Resumed?

Figure 11

Host Sends Notification Message To Each Neighbor In
The First Row Of The NHT That Corresponds To The Peer 1110

Multilevel
Routing Table Cache Of The
Neighbor Contains
The Peer's Identifier ?

1112

YES

Neighbor Performs PNRP Forwarding Of The Notification Message To A Cached Peer Having An Identifier That Is Closer

To The Peer Than
That Of The Neighbor 1118

Neighbor Directly Forwards Notification Message To The Peer Using The Identifier Cached At The Neighbor 1114

<u>The Peer:</u> Receives At Least One Notification Message Forwarded By Its Neighbors;

Responds Only To The First Notification Message Received;
Generates A Notification Response To The First Notification Message; And PNRP Based S/N Service At The Peer Notifies Its E2E Mobility Module
About The Updated Information 1116

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9 of 9 Replacement Sheet

Inventors: Title: P2

rs: Guo, et al. P2P Mobility System and Method



